We claim:

1. An apparatus for use with a clamp including first and second clamp members, the apparatus comprising:

a support device configured to be removably secured to at least one of the first and second clamp members;

a coagulation element carried by the support device; and

a stimulation element carried by the support device.

2. An apparatus as claimed in claim 1, wherein the support device includes a mating structure configured to mate with the first clamp member.

3 An apparatus as claimed in claim 2, wherein the support device mating structure comprises a relatively narrow portion and a relatively wide portion.

4. An apparatus as claimed in claim 1, wherein the coagulation element defines a coagulation element configuration, the stimulation element defines a stimulation element configuration, and the stimulation element configuration is different than the coagulation element configuration.

5. An apparatus as claimed in claim 1, wherein the coagulation element comprises a coagulation electrode.

6. An apparatus as claimed in claim 5, wherein the stimulation element comprises a stimulation electrode.

7. An apparatus as claimed in claim 6, wherein the coagulation electrode defines a coagulation electrode length, the stimulation electrode defines a stimulation electrode length, and the coagulation electrode length is greater than the stimulation electrode length.

8. An apparatus as claimed in claim 1, wherein the stimulation element comprises a stimulation electrode.

9. An apparatus as claimed in claim 1, wherein the stimulation element comprises a stimulation electrode pair.

10. An apparatus as claimed in claim 1 further comprising:

first and second coagulation element wires connected to the coagulation element.

11. An apparatus as claimed in claim 1, wherein the stimulation element is located distally of the coagulation element.

12. An apparatus as claimed in claim 1, wherein the stimulation element comprises first and second stimulation elements on opposite sides of the coagulation element.

13. An apparatus as claimed in claim 1, wherein the support device defines a first support device configured to be removably secured to the first clamp member, the coagulation element defines a first coagulation element and the stimulation element defines a first stimulation element, the apparatus further comprising:

a second support device configured to be removably secured to the second clamp member;

a second coagulation element carried by the second support device; and

a second stimulation element carried by the second support device.

14. An apparatus, comprising:

a clamp including a first clamp member, a second clamp member, and movement apparatus that moves at least one of the first and second clamp members relative to the other of the first and second clamp members such that the surgical apparatus has an open state and a closed state;

a coagulation element associated with one of the first and second clamp members; and

a stimulation element associated with one of the first and second clamp members.

15. An apparatus as claimed in claim 14, wherein the coagulation element comprises a coagulation electrode.

16. An apparatus as claimed in claim 15, wherein the stimulation element comprises a stimulation electrode.

17. An apparatus as claimed in claim 16, wherein the coagulation electrode defines a coagulation electrode length, the stimulation electrode defines a stimulation electrode length, and the coagulation electrode length is greater than the stimulation electrode length.

18. An apparatus as claimed in claim 14, wherein the stimulation element comprises a stimulation electrode.

19. An apparatus as claimed in claim 14, wherein the stimulation element comprises a stimulation electrode pair.

20. An apparatus as claimed in claim 14, further comprising:

first and second coagulation element wires connected to the coagulation element.

21. An apparatus as claimed in claim 14, wherein the stimulation element comprises first and second stimulation elements on opposite sides of the coagulation element.

22. An apparatus as claimed in claim 14, wherein the coagulation element defines a first coagulation element, the stimulation element defines a first stimulation element and the first coagulation element and first stimulation element are associated with the first clamp member, the apparatus further comprising:

a second coagulation element associated with the second clamp member; and

a second stimulation element associated with the second clamp member.

23. An apparatus as claimed in claim 22, wherein the first stimulation element comprises a pair of stimulation elements on opposite sides of the first coagulation element and the second stimulation element comprises a pair of stimulation elements on opposite sides of the second coagulation element.

24. A method, comprising the steps of:

positioning first and second coagulation elements on first and second clamp members about a tissue structure;

forming a lesion with the coagulation elements; and

supplying stimulation energy to tissue adjacent to the lesion with a stimulation element on one of the first and second clamp members.

25. A method as claimed in claim 24, wherein

the step of positioning first and second clamp members comprises positioning first and second coagulation elements on first and second clamp members about at least one pulmonary vein; and

the step of forming a lesion comprises forming a lesion around the at least one pulmonary vein with the coagulation elements.

26. A method as claimed in claim 25, wherein the step of supplying stimulation energy to tissue comprises supplying stimulation energy to tissue on the side of the lesion opposite the left atrium.

27. A method as claimed in claim 24, wherein the step of supplying stimulation energy to tissue comprises transmitting stimulation energy to tissue adjacent to the lesion with a first stimulation element on the first clamp member and returning the stimulation energy with a second stimulation element on the second clamp member.

28. A method as claimed in claim 24, wherein the step of supplying stimulation energy to tissue comprises

placing a first stimulation element on the first clamp member on one side of the lesion;

placing a second stimulation element on the second clamp member on the other side of the lesion; and

transmitting stimulation energy to tissue adjacent to the lesion with the first stimulation element and returning the stimulation energy with the second stimulation element.

29. A method as claimed in claim 24, wherein the step of supplying stimulation energy to tissue comprises

placing a first stimulation element on the first clamp member on one side of the lesion;

placing a second stimulation element on the first clamp member on the other side of the lesion; and

transmitting stimulation energy to tissue adjacent to the lesion with the first stimulation element and returning the stimulation energy with the second stimulation element.

30. A method, comprising the steps of:

positioning first and second coagulation elements on first and second clamp members about a tissue structure;

forming a lesion with the coagulation elements; and

monitoring local tissue activation in tissue on one side of the lesion with an element on one of the first and second clamp members.

31. A method as claimed in claim 30, wherein

the step of positioning first and second clamp members comprises positioning first and second coagulation elements on first and second clamp members about at least one pulmonary vein; and

the step of forming a lesion comprises forming a lesion around the at least one pulmonary vein with the coagulation elements.

32. A method as claimed in claim 31, wherein the step of monitoring local tissue activation comprises monitoring local tissue activation in tissue on the side of the lesion opposite the left atrium.

33. A method as claimed in claim 30, wherein the step of monitoring local tissue activation comprises monitoring local tissue activation with a first element on the first clamp member and a second element on the second clamp member.

34. A method as claimed in claim 30, wherein the step of monitoring local tissue activation comprises

placing a first stimulation element on the first clamp member on one side of the lesion;

placing a second stimulation element on the second clamp member on the other side of the lesion; and

transmitting stimulation energy to tissue adjacent to the lesion with the first stimulation element and returning the stimulation energy with the second stimulation element.

35. A method, comprising the steps of:

positioning a first stimulation element on a first clamp member on a first lesion surface;

positioning a second stimulation element on a second clamp member on a second lesion surface;

transmitting stimulation energy into the lesion through one of the first and second stimulation elements; and

monitoring local tissue activation with the other of the first and second stimulation elements.

36. A method as claimed in claim 35, wherein

the step of positioning a first stimulation element comprises positioning a first stimulation element on a first clamp member on an epicardial lesion surface; and

the step of positioning a second stimulation element comprises positioning a second stimulation element on a second clamp member on an endocardial lesion surface.

37. A method as claimed in claim 35, wherein

the step of positioning a first stimulation element comprises positioning a first stimulation element on a first clamp member on a first epicardial lesion surface; and

the step of positioning a second stimulation element comprises positioning a second stimulation element on a second clamp member on a second epicardial lesion surface.

38. A surgical system, comprising

a source of coagulation energy;

a source of stimulation energy; and

an apparatus including

a clamp having a first clamp member, a second clamp member, and movement apparatus that moves at least one of the first and second clamp members relative to the other of the first and second clamp members such that the surgical apparatus has an open state and a closed state,

a coagulation element associated with one of the first and second clamp members, and

a stimulation element associated with one of the first and second clamp members.

39. A surgical system as claimed in claim 38, wherein the coagulation element defines a coagulation element configuration, the stimulation element defines a stimulation element configuration, and the stimulation element configuration is different than the coagulation element configuration.

40. A surgical system as claimed in claim 38, wherein the coagulation element comprises a coagulation electrode.

41. A surgical system as claimed in claim 40, wherein the stimulation element comprises a stimulation electrode.

42. A surgical system as claimed in claim 41, wherein the coagulation electrode defines a coagulation electrode length, the stimulation electrode defines a stimulation electrode length, and the coagulation electrode length is greater than the stimulation electrode length.

43. A surgical system as claimed in claim 38, wherein the stimulation element comprises a stimulation electrode.

44. A surgical system as claimed in claim 38, wherein the stimulation element comprises first and second stimulation elements on opposite sides of the coagulation element.

45. A surgical system as claimed in claim 38, wherein the coagulation element defines a first coagulation element, the stimulation element defines a first stimulation element and the first coagulation element and first stimulation element are associated with the first clamp member, the apparatus further comprising:

a second coagulation element associated with the second clamp member; and

a second stimulation element associated with the second clamp member.

46. A surgical system as claimed in claim 45, wherein the first stimulation element comprises a pair of stimulation elements on opposite sides of the first coagulation element and the second stimulation element comprises a pair of stimulation elements on opposite sides of the second coagulation element.